



INCOMM L510 Lamp Controller

USER GUIDE

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OVERVIEW

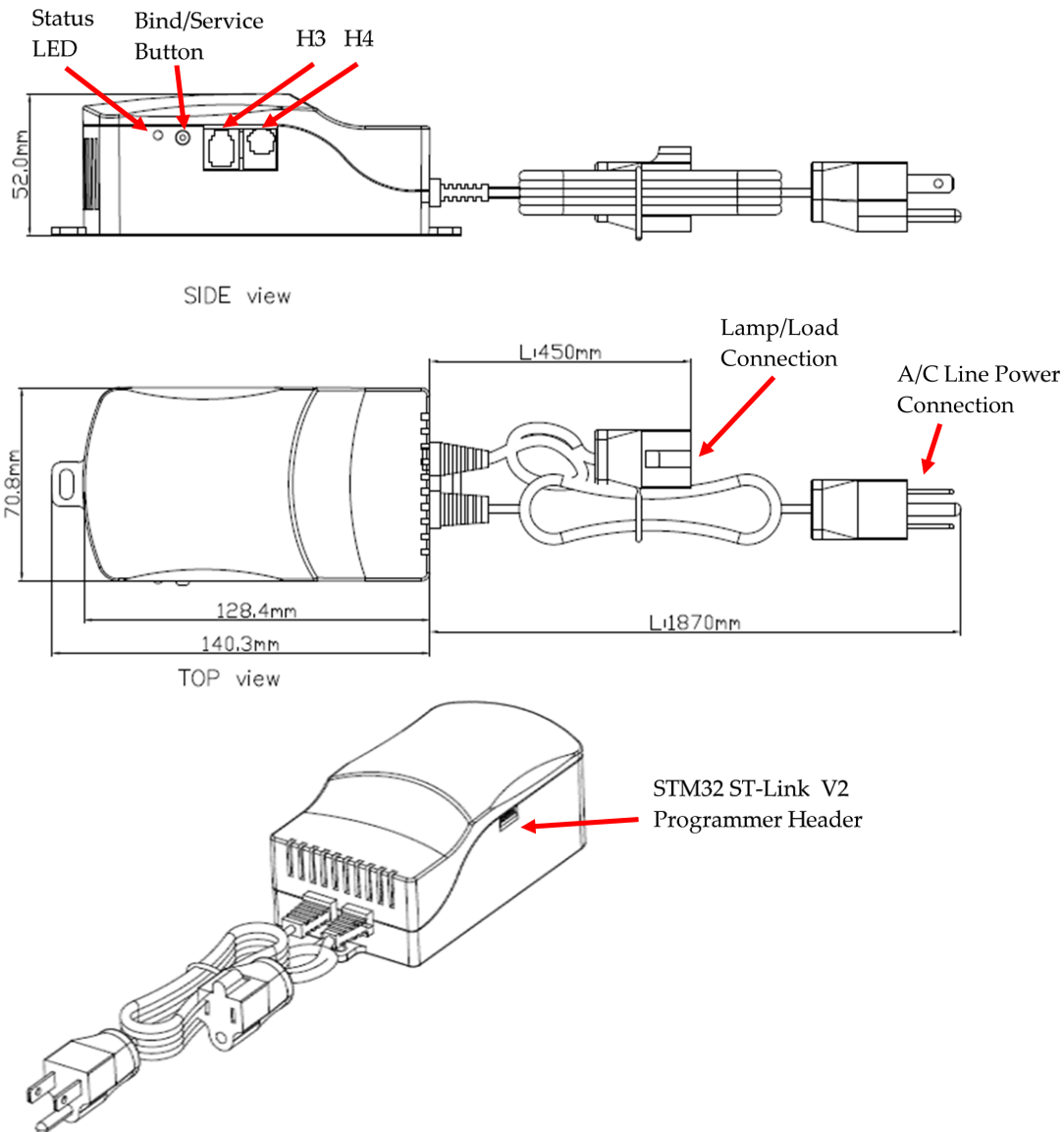
The L510 provides dimming control of almost any floor or desk lamp. The dimmer plugs right into your lamp and wall socket. Dimming the lights with the L510 saves energy and provides elegant lighting and mood control when used in conjunction with Honeywell's Integrated Room Automation System.

Typical application L510 provides wireless remote control of a table or floor lamp while participating in a lighting scene or mood. The L510 can also be equipped with a tabletop switch for easily accessible local control of the lamp, making it easier to turn the light on and off without reaching under the lamp shade. L510 allows using a standard light bulb instead of costly 3- way bulbs. L510 is available in models for dimmable CFL and LED bulbs and models designed for incandescent and halogen lamps and can do non-lamp plug-in loads like dimmable plug-in LED strips.



Figure 1. L510 Overview

DIMENSIONS



LED STATUS INDICATIONS

Off: L510 is not powered.

On for 1/2 second, Off for 1/2 second, and repeating: L510 is powered but has not received a "Central Status Broadcast" and does not think the room it is in is Online/connected with the Inncom server.

On for 1 second, Off for 1 second, and repeating: L510 is powered and has seen a "Central Status Broadcast" and does think the room it is in is Online/connected with the Inncom server.

Eight blinks 1/2 second apart, followed by a very rapid blink for 4 seconds, followed by On for 1 second, Off for 1 second, and repeating: The Bind/Service button was pressed, making the L510 send a Bind Request. The eight blinks indicate the L510 received a Bind Offer. It then RESETS, and on startup, it rapidly blinks the LED for 4 seconds.

On for 1 second, followed by very rapid blink for 4 seconds, followed by On for 1 second, Off for 1 second and repeating:

- The L510 just had power applied or was RESET.
- The Bind/Service button was pressed and the L510 has sent a Reverse Bind command but never received a Bind Offer.

L510 H3 AND H4 MODULAR PLUG CONNECTIONS

H3 RJ12 6-pin socket – Pins 2,3,5 provide an S5-Bus connection from the L510.

Accepts a 6P6C RJ12 modular plug.

Pins 1,4,6 not used.

A 250mm and 3000mm pre-built cable depicted above is available for order.

62-1345 = CABLE ASSY, 3 PIN 250MM, RJ12 TO S5BUS W, 62-1345.10 = CABLE ASSY, 3 PIN CABLE, 3000MM, S5, 3 Pin Connector to RJ12 Connector.

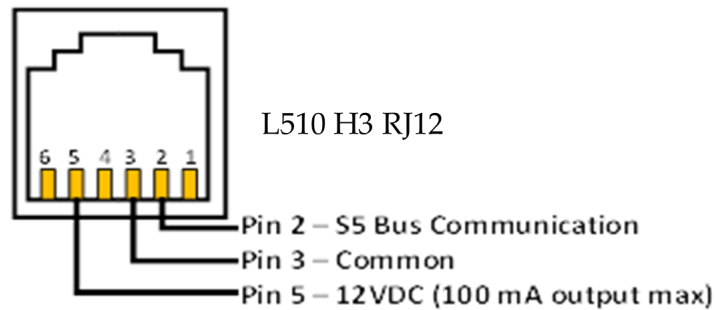


Figure 2. L510 H3 RJ12 Socket



Figure 3. RJ12 Plug (Molex 90075-031 or similar)

H4 RJ9 4-pin socket – Pins 2,3 provide an input to connect an external dry contact switch.

Accepts a 4P4C RJ9 modular plug. Pins 1 and 4 are not used

The typical use is to monitor an entry door or balcony door switch. You can configure the desired functionality via Inncom's INNTTool/EngINN software.

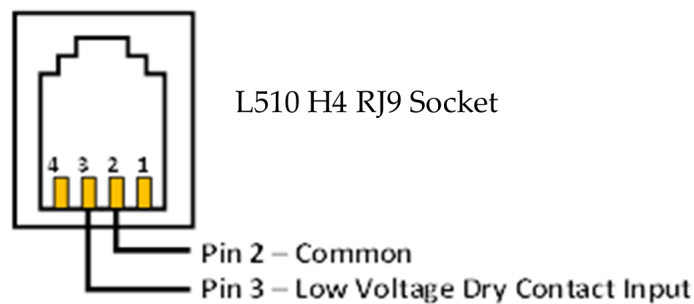


Figure 4. L510 H4 RJ9 Socket



Figure 5. RJ12 Plug (Molex 90075-0027 or similar)

BINDING AND CONFIGURING THE L510 F OR L510 T

Configure the L510 with a unique device address and required functionality, and it contains a radio that requires being “bound” to a specific Room ID, PAN ID, and RF Channel. Use a laptop with the EngINN program installed with a connected PC503 USB commissioning device to perform this binding and configuration. You can also configure it with an E7, E528/E527.4G thermostat, or e7w/E529 battery-powered thermostat.

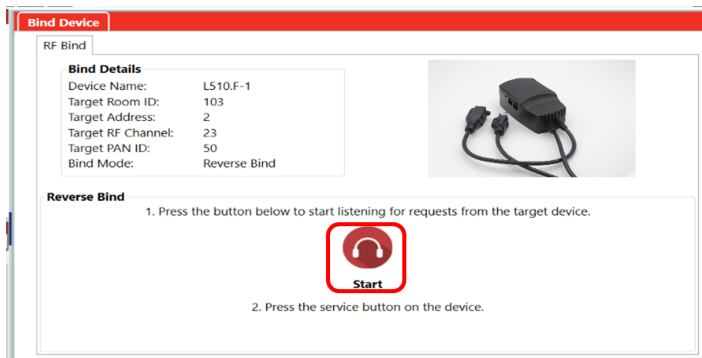
Binding and configuring the L510 from EngInn

Prerequisite: Create an INNTool project that defines all the required settings for L510.F or L510.T using INNTool in a particular room and load it into EngINN. It is beyond the scope of this document to fully cover using INNTool/EngINN. Refer to specific commissioning documentation.

1. Navigate to the Deployment Data section on EngINN and select the desired room and L510. The Device Summary page opens, displaying the defined settings for the selected L510. Click the “Bind” button at the bottom to open the Bind Device screen.



2. On the Bind Device screen that appears, click the Start button to make EngINN begin to watch for Bind Request from the L510.



L510 Bind button



3. The L510 uses a “Reverse Bind,” meaning it will send a Bind Request when you press its Bind /Service button. Do the following steps to Bind the L510.

- a. Go to the desired L510 and press its Bind/Service button to initiate the Reverse bind. It should send a Bind Request.

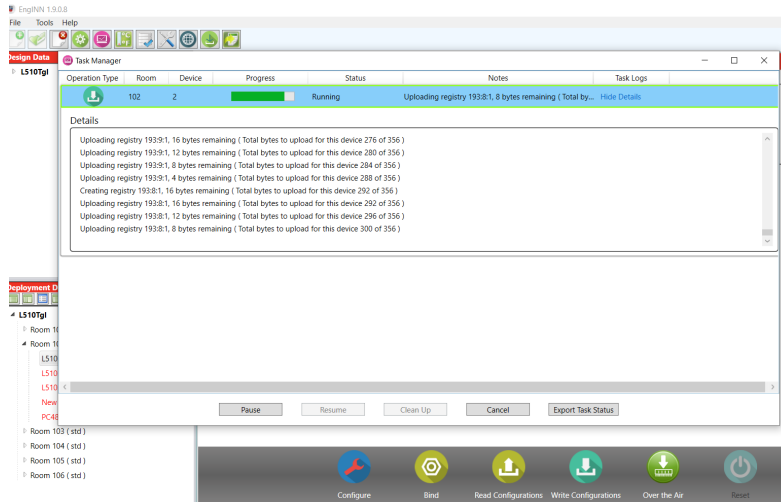
L510 Bind button



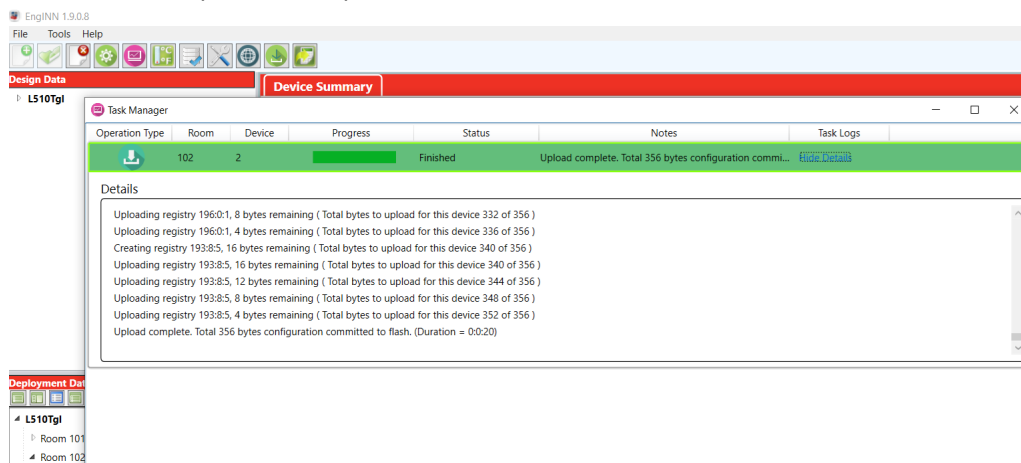
- b. If EngINN via the PC503 received the Bind request from the L510, it would send a Bind Offer to the L510. If the L510 received this Bind Offer, it will store the settings defined in the Bind Offer, RESET, then, upon startup, send a sound buzzer message into the room to make any device with a buzzer beep as audible feedback that the L510 was bound.

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- c. Upon seeing the L510 startup, ENGINN will show a green check symbol indicating the bind was successful.
4. With the L510 bound and assigned its Room ID, PAN ID, and RF Channel, push its configuration from EngINN.
 - a. Click the Back to Summary button to return to the Device Summary screen.
 - b. Click the Write Configurations button. This will open the EngINN Task Manager, and you should see EngINN verifying the L510 exists and begin to write the defined configurations to the L510.



- c. EngINN will indicate the upload is completed.



5. Test the functionality of the L510.

Binding and configuring the L510 from an e7 or e7w Battery Powered Thermostat

You can bind and configure the L510 with an e7 thermostat or e7w battery-powered thermostat if not using EngINN. Refer to applicable commissioning documentation for the required L510 Address and I/O Map and the exact commissioning procedures.

1. Enter Service Parameter mode on the e7/e7w.
 - a. Press and hold °F|°C.
 - b. Press and hold MODE.
 - c. Press and hold FAN.
 - d. Release the three buttons.

The thermostat will display “rid” when it has entered Service Parameter mode.



2. If not already done, set the required Room ID, PAN ID, and RF Channel into the e7/e7w. These values will be transferred to the L510 when you initiate the Bind. If this is already set, skip to Step 3.

Set the Room ID:

- a. Press Mode when the rid is displayed. The currently stored Room ID value is displayed and will begin scrolling across the screen one numerical setting at a time, from highest to lowest (left most to right most value). Note that the five-digit number comprises three fields: highest digit, middle two digits, and lowest two digits.
- b. Scrolling will first stop at the highest digit and display three vertical dots. Use the UP/DOWN arrow buttons to change this value (range is 0-6). Press FAN to continue.
- c. It will display two middle digits and two vertical dots. Set the middle two values using the UP/DOWN arrow buttons (range is 0-99). Press FAN to continue.
- d. It will display the last two digits and a single dot. Set the previous two digits using the UP/DOWN arrow buttons (range is 0-99). Press MODE to accept the value.
- e. The new ID number displays across the display. The E528/E527 stores the value in the memory beeps. The E529 does not beep. It will show rid again once the scrolling is complete.

Set the PAN ID:

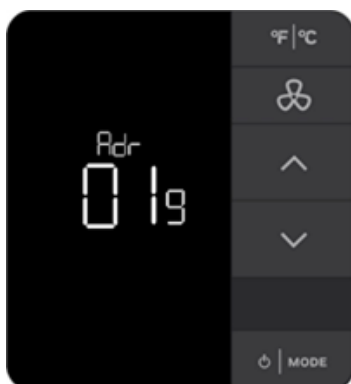
The valid ID range is 0-255; refer to the property-specific documentation for applicable PAN ID settings. To set the PAN ID, do the following:



- a. Use the UP/DOWN arrow buttons to select PAN.
- b. Press MODE
- c. Use the UP/DOWN arrow buttons to select the valid PAN ID value.
- d. Press FAN to store the value in memory.

Set the RF Channel:

- a. Use the UP/DOWN arrow buttons to select RF.
 - b. Press MODE
 - c. Use the UP/DOWN arrow buttons to select the RF Channel value.
 - d. Press FAN to store the value in memory.
 - e. Press °F|°C to exit service mode.
3. With the required Room ID, PAN ID, and RF Channel entered into the thermostat, now Bind the L510. There are two options:



- **Teach Address Bind** – Set a defined Address into the L510 in addition to the Room ID, PAN ID, and RF Channel.
 - a. Use the UP/DOWN arrow buttons in SERVICE MODE to select Adr.
 - b. Press MODE. The display changes to show Adr and an address value. Use the UP/DOWN arrow buttons to change the displayed value to the desired address.
 - c. Press FAN to place the thermostat into reverse bind mode. The L510 uses a reverse bind.

The thermostat display will show bnd, indicating it is waiting to see a reverse bind command from the L510. On the L510, press its Bind/Service button to make the L510 send a Bind Request. The thermostat will send a Bind Offer to the L510 containing the defined values when it sees this message. If the L510 received the Bind Offer, it would RESET and, upon startup, start using the new, designated Address and send 3 Sound buzzer messages to make the thermostat beep as an indication that the L510 was bound.
- Press °F|°C three times to exit service mode.
- **Teach I/O Bind** - Activate a stored I/O map configuration in the L510 and set the Room ID, PAN ID, and RF Channel.
 - a. Use the UP/DOWN arrow buttons in SERVICE MODE to select Io.
 - b. Press MODE. The display changes to show Io and an I/O Map value. Use the UP/DOWN arrow buttons to change the displayed value to the desired I/O map.
 - c. Press FAN to place the thermostat into reverse bind mode. The L510 uses a reverse bind.

The thermostat display will show bnd, indicating it is waiting to see a reverse bind command from the L510. On the L510, press its Bind/Service button to make the L510 send a Bind Request. The thermostat will send a Bind Offer to the L510 containing the defined values when it sees this message. If the L510 received the Bind Offer, it would RESET and upon startup, start using the new I/O Map configuration and send 3 Sound buzzer messages to make the thermostat beep as an indication that the L510 was bound.

d. Press °F|°C three times to exit service mode.

4. Test the functionality of the L510.

Binding and configuring the L510 from an E528/E527.4G or E529 Battery Powered Thermostat

If not using EngINN to Bind and configure the L510, you can bind and configure the L510 with an E528/E527.4G thermostat or E529 battery-powered thermostat. Refer to applicable commissioning documentation for the required L510 Address and I/O Map.

1. Enter Service Parameter mode on the E528/E527/E529.

- Press and hold °F|°C.
- Press and hold OFF/AUTO.
- Press and hold DISPLAY.
- Release the three buttons.

The thermostat will display “rid” when it has entered Service Parameter mode.

2. If not already done, set the required Room ID, PAN ID, and RF Channel into the E528/E527/E529. These values will be transferred to the L510 when you initiate the Bind. If these have already been set, skip to Step 3.

Set the Room ID:

- With rid displayed, press DISPLAY. The currently stored Room ID value is displayed and will begin scrolling across the screen from highest to lowest (left most to right most value). Note that the five-digit number comprises three fields: highest digit, middle two digits, and lowest two digits.
- Scrolling will stop at the highest digit first. HI, and will display the highest digit. Use the UP/DOWN arrow buttons to change the value (range is 0-6).

For the E528/E527, press OFF/AUTO to continue. For the E529, press DISPLAY to continue.

- It will display MED and the middle two digits. Set the following two values in the sequence using the UP/DOWN arrow buttons (range is 0-99).

For the E528/E527, press OFF/AUTO to continue. For the E529, press DISPLAY to continue.

- It will display the LO and the last two digits (the range is 0-99). Set the previous two values using the UP/DOWN arrow buttons (range is 0-99) and press DISPLAY to accept the value.
- The new ID number displays across the display. The E528/E527 stores the value in the memory beeps. The E529 does not beep. It will show rid again once the scrolling is complete.

Set the PAN ID:

The valid ID range is 0-255; refer to the property-specific documentation for applicable PAN ID settings. To set the PAN ID, do the following:

- Use the UP/DOWN arrow buttons to select PAN.
- Press DISPLAY
- Use the UP/DOWN arrow buttons to select the valid PAN ID value.
- Press DISPLAY to store the value in memory.

Set the RF Channel:

- a. Use the UP/DOWN arrow buttons to select rF.
 - b. Press DISPLAY
 - c. Use the UP/DOWN arrow buttons to select the RF Channel value.
 - d. Press DISPLAY to store the value in memory.
 - e. Press °F|°C to exit service mode.
- 3. With the required Room ID, PAN ID, and RF Channel entered into the thermostat, now Bind the L510. There are two options:**
- **Teach Address Bind** - This sets the defined Address into the L510 in addition to the Room ID, PAN ID, and RF Channel.
 - a. In SERVICE MODE, use the UP/DOWN arrow buttons to select Adr.
 - b. Press DISPLAY. The display changes to show V and a value. Use the UP/DOWN arrow buttons to change the displayed value to the desired address.
 - c. Initiate the Reverse Bind:
 - “For the E528/E527, press OFF/AUTO to place the thermostat into reverse bind mode. The L510 uses a reverse bind. The E528/E527 will display bnd, indicating it is waiting to see a reverse bind command from the L510.
 - For the E529, do nothing. Leave the E529 displaying the desired Address.

On the L510, press its Bind/Service button to make the L510 send a Bind Request. The thermostat will send a Bind Offer to the L510 containing the defined values when it sees this message. If the L510 received the Bind Offer, it will RESET and, upon startup, begin using the defined Address and send 3 Sound buzzer messages to make the thermostat beep as an indication that the L510 was bound.

 - Press °F|°C three times to exit service mode.
 - **Teach Address Bind** - Activate a stored I/O map configuration in the L510 and set the Room ID, PAN ID, and RF Channel.
 - a. In SERVICE MODE, use the UP/DOWN arrow buttons to select Io.
 - b. Press DISPLAY. The display changes to show V and a value. Use the UP/DOWN arrow buttons to change the displayed value to the desired I/O map.
 - c. Initiate the Reverse Bind:
 - For the E528/E527, press OFF/AUTO to place the thermostat into reverse bind mode. The L510 uses a reverse bind. The E528/E527 will display bnd, indicating it is waiting to see a reverse bind command from the L510..
 - For the E529, do nothing. Leave the E529 displaying the desired I/O Map.

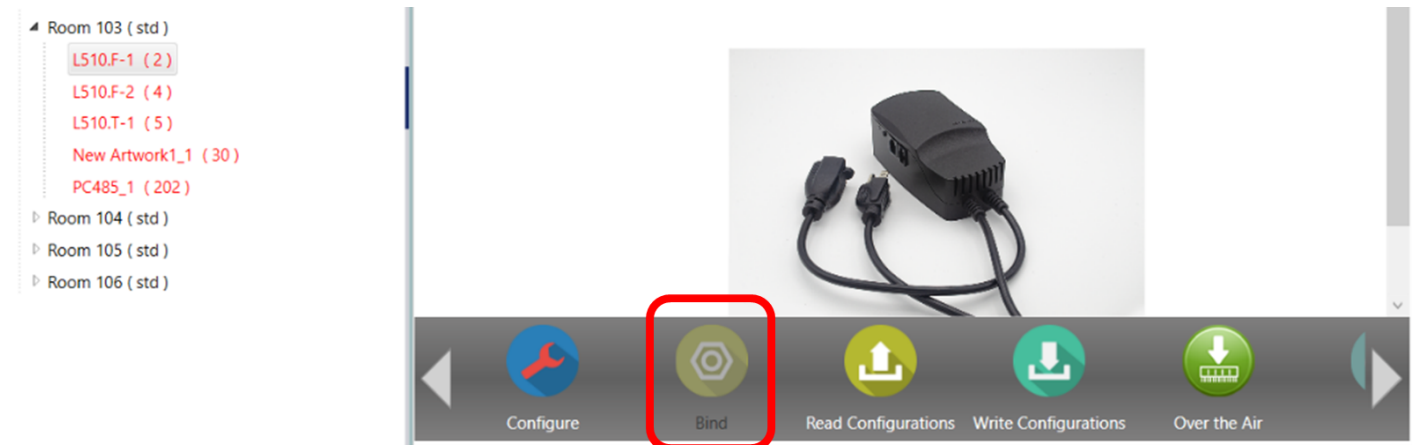
On the L510, press its Bind/Service button to make the L510 send a Bind Request. The thermostat will send a Bind Offer to the L510 containing the defined values when it sees this message. If the L510 received the Bind Offer, it will RESET and, upon startup, begin using the new I/O Map configuration and send 3 Sound buzzer messages to make the thermostat beep as an indication that the L510 was bound.

 - Press °F|°C three times to exit service mode.
- 4. Test the functionality of the L510.**

TROUBLESHOOTING

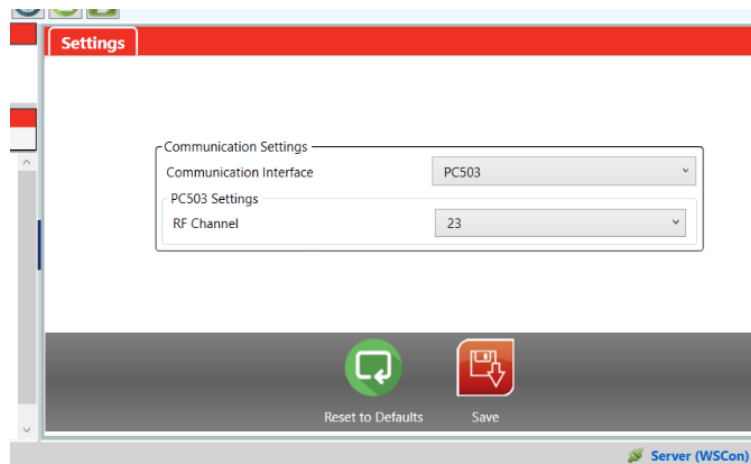
Binding and configuring issues

1. You can't Bind the L510 from EngINN. The "Bind" button is disabled

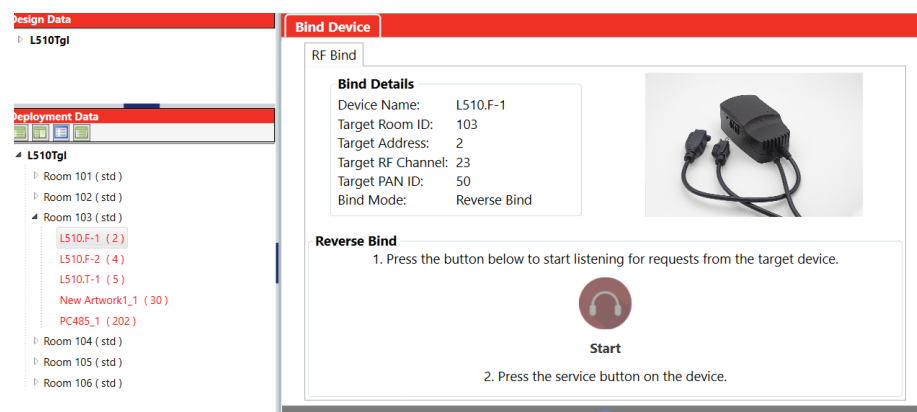


Possible Reasons:

Configure EngINN to connect to WSCon instead of the PC503. Look in the lower right corner of EngINN. If you see "Server (WSCon)", configure EngINN to connect to the WSCon program instead of the PC503. Click the "Server (WSCon)" item to open a Settings window. From there, set the EngINN Communication Interface to PC503 instead of Server (WSCon) and click the Save button to update EngINN.



2. You can't Bind the L510 from EngINN. When Binding the L510 from EngINN, you click the Reverse Bind Start button, then go to the L510 and press its Bind button, but EngINN never indicates it received a Bind request and never displays a Green check or indicates the device is Online.



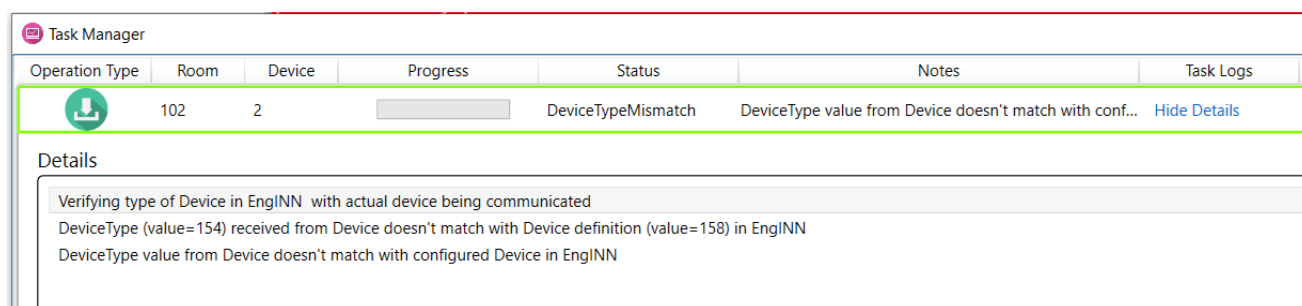
Possible Reasons:

- The PC503 USB commissioning device is not connected to a USB port on the PC being used to run EngINN. There is an issue with the USB cable used, or the USB driver the PC503 uses did not install correctly. Look at the bottom right of EngINN. Does it indicate “PC503-Channel XX – Connected” or “Disconnected”.



If it indicates disconnected, verify the connection between PC503, USB cable, and the used PC. Try just unplugging the USB cable and plugging it back in again and see if that forces EngINN to connect to the PC503. If that doesn't work, try plugging the USB cable into a different USB port. PC503 is a Windows HID device similar to a mouse that does not need an installed driver, and no Com port gets assigned to it.

- The L510 is not powered. Verify that the L510 power cable is plugged into a live/power outlet supplying 120VAC. If powered, the Green Status LED on the L510 should be ON.
3. When writing a configuration to the L510 from EngINN, you get a “DeviceType value doesn't match with the configured device in EngINN” message, and EngINN does not configure the device.

**Possible Reasons:**

The software loaded into the L510 is not the proper INNTTool Shelf software that needs to be used with EngINN. EngINN expects devices configured and commissioned from EngINN to be loaded with a specific “INNTTool Shelf” version for the particular device getting configured. EngINN first reads the device's “Device Type” ID when you start downloading a configuration to the device. It does not match what EngINN expects. It stops the configuration and indicates that the Device Type in the device does not match.

It would help if you verify what loaded actual software into the L510 and whether it is the latest/current INNTTool Shelf version for the L510. Contact Inncom Customer service if you have questions.

Light Output Control Issues

- I never see the L510 turn ON its output.

Switched Lamp Power
Connect Lamp power
cable



L510 Power
Connect to
120VAC Outlet

Possible Reasons:

- The L510 is not powered. Verify that the L510 power cable is plugged into a live/power outlet supplying 120VAC. If powered, the Green Status LED on the L510 should be ON.